

TRENDING SYSTEM AND METHOD USING MONOTONIC REGRESSION

ABSTRACT OF THE DISCLOSURE

A system and method is provided for trending performance in a mechanical system. The trending system includes a performance estimator and a predictive trending mechanism. The performance estimator receives sensor data from the mechanical system and generates performance parameter estimates for the mechanical system. The performance parameter estimates are parametric data that are indicative of performance in the mechanical system. The performance parameter estimates are passed to a predictive trending mechanism. The predictive trending mechanism determines an estimated trend for the performance parameter estimates through monotonic regression of the performance parameter estimates. The estimated trend of the performance parameter estimates can include filtered values of the performance parameter estimates and/or predictions of future performance parameters.